



July 13, 2004

Gary Feldman
Harvard University

John Cooper
Fermilab PPD, MS 208

Dear Gary and John,

Thank you for coming to Aspen to respond to questions from the Physics Advisory Committee (PAC) on P-929 (Proposal to Build an Off-Axis Detector to Study $\nu_\mu \rightarrow \nu_e$ Oscillations in the NuMI Beamline – NOvA) and to provide additional input to their deliberations. We asked the PAC to consider the NOvA proposal in the context of worldwide neutrino physics. To this end, we arranged for reports about the APS neutrino study and about the recent Director's Review of Neutrino Initiatives in which you both participated. The Committee developed a list of four criteria against which the proposal should be judged, and "The Committee finds the proposal meets the above four criteria if the detector can be built in a timely manner."

In making its recommendations, the PAC wrote "The Committee strongly endorses the physics case for the NOvA detector, and would like to see NOvA proceed on a fast track that maximizes its physics impact. Both the physics case and the detector design have undergone rapid evolution since the PAC first received the NOvA proposal. While the Committee applauds this progress, it concludes that Stage I approval at this time is premature." The PAC followed with a number of steps they felt needed to be completed, and recommended support for the needed R&D. The complete text of the PAC's comments on neutrino physics and on NOvA is attached.

I have decided to accept these recommendations. I would like to request that you work closely with the Laboratory to set up the organization needed to advance the R&D and other issues. For our part, we will try to make the necessary resources available. In conclusion, I am encouraged to think that the NOvA experiment has the potential to become a keystone of our future neutrino program.

As you know, I wrote a letter to the chairmen of the APS neutrino study, with a copy to you. This letter was written to closely match the PAC report. I pointed out to them that, "Although the planning (for NOvA) is more advanced than other unapproved neutrino proposals, it is not yet as advanced as Fermilab requires for Stage I approval." You and other members of the NOvA collaboration should continue to work closely with that

ongoing study to develop a coherent U.S. neutrino program, of which the NOvA experiment will be a crucial component.

We look forward to taking the next steps toward Stage I approval of NOvA.

Sincerely,

Michael Witherell

Attachment

cc: K. Stanfield
H. Montgomery
S. Holmes
J. Appel